in order to institute effective and prompt treatment of this disease.

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77.002

Thrombocytopenia in murine typhus: A study of 161 cases

S. Doukakis[1], M. Papadakis[1], M. Daoukakis[1], P. Stavroulakis[1], K. Bambili[1], G. Polymili[1], D. Triantafillidou[1], M. Junie[1], S. Kastanakis[2,*]

[1] *Chania, Greece*
[2] *Saint George General Hospital Chania Greece, Chania, Greece*

Background: According to the international literature thrombocytopenia is frequent in murine typhus.

Methods: One hundred and sixty- one patients with compatible clinical status of murine typhus and high serological titers of antibodies against Rickettsia typhi, were studied from our team, during a period of time between January 1993 and December 2007. Three blood samples were obtained from each patient for the study of their thrombocytopenia. The first sample was obtained on admission, approximately 9 days after the onset of the disease. The second sample approximately two weeks after the first. The third sample, taken from the one third of the patients, was obtained one month after the second. On admission (first sample) 88/161 patients (54.6%) presented thrombocytopenia and the median value of platelets was 141x103 /ml respectively. Two weeks later (second sample) 23/147 patients (15.3%) presented thrombocytopenia. The median value of platelets was 247x103 /ml respectively. One month later (third sample) 2/42 patients (4.8%) presented thrombocytopenia and the median value of platelets was 224.5x103 /ml respectively.

Results: Our study showed that thrombocytopenia is frequent in murine typhus on admission of the patients to the hospitals. The number of platelets, according to our results, returns to normal value after almost a month of the onset of the infection.

Conclusion: Thrombocytopenia returns to normal values after a month of the onset of the infection.

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77.003

Prevalence of neonatal conjunctivitis due to *Chlamydia trachomatis* in two hospitals in Iran

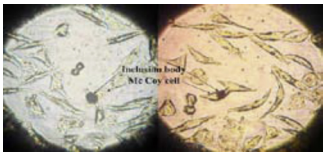
S. Rafiei Tabatabaei*, S.A. Afjeiee, A. Karimi, F. Fallah, A. Tavakkoly Fard, N. Tahami Zanjani, R. Radmanesh Ahsani, A.R. Shamshiri

Shahid Beheshti University of Medical Sciences, Tehran, Iran, Islamic Republic of

Background: One of the most common bacterial infections causing ophthalmia neonatorum is Chlamydia trachomatis. Very few studies have been done in Iran to determine the prevalence of Chlamydia trachomatis causing ophthalmia neonatorum using cell culture and polymerase chain reaction methods. This study aimed to evaluate the prevalence of neonatal chlamydial conjunctivitis by these methods, in two hospitals, Tehran, Iran.

Methods: From March 2008 to May 2009, of the 2253 neonates, 241 (10.7%) with clinical findings of conjunctivitis were included in this study. A total of 241 conjunctival swabs were investigated by cell culture (as the gold standard test), polymerase chain reaction and Giemsa staining.

Results: Cell cultures were positive for Chlamydia trachomatis in 31 (12.9%) neonates. Also Chlamydia trachomatis was positive in 40(16.6%) and 18(7.5%) neonates by polymerase chain reaction and Giemsa staining respectively. The sensitivities of polymerase chain reaction and Giemsa staining were 100% and 58.1% respectively.



Conclusion: Regarding to high prevalence of neonatal chlamydial conjunctivitis by cell culture, and high sensitivity and specificity (100% and 95.7% respectively) of polymerase chain reaction in the present study, polymerase chain reaction can be considered as a proper diagnostic method for detection of Chlamydia trachomatis.

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77.004

Invasive *Streptococcus pneumoniae* serotypes associated with in-patient and out-patient isolates from the United States

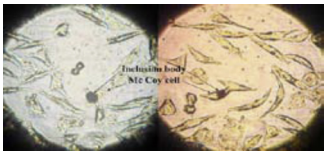
M. Hackel[1,*], C. Lascols[1], S. Bouchillon[1], D. Hoban[1], J. johnson[1], M. Dowzicky[2]

[1] *International Health Management Associates, Inc., Schaumburg, IL, USA*
[2] *Pfizer Inc, Collegeville, PA, USA*

Background: Streptococcus pneumoniae (SPN) is a major cause of invasive diseases and upper respiratory tract infections. Introduction of the pneumococcal conjugate 7-valent vaccine (PV7) into the US childhood vaccine schedule in 2000 has significantly reduced invasive pneumococcal disease in children and adults, with concurrent reduction in the seven vaccine serotypes. Consistent monitoring of possible replacement serotypes is essential to determine possible antibiotic resistance patterns as certain serotypes are more closely associated with antibiotic resistance, as well as to determine targets for future vaccines. In this study we evaluate the serotypes of invasive SPN isolates from in-patients and outpatients from 2004.

Methods: The capsular serotypes of 275 invasive SPN isolates collected in the US through the Tigecycline Evaluation Surveillance Trial were determined using sequential multiplex PCR and confirmed using the Quellung reaction. Invasive isolates were defined as those from normally sterile sites, such as blood, CSF and other body fluid.

Results: In the following table.



***nt = non-typeable.**

Conclusion: While PV7 serotypes have declined since 2000, in 2004 approximately 20% of the invasive isolates from this study were from the seven vaccine types (4, 6B, 9 V, 14, 18C, 19F, 23F). In-patients and out-patients were equally likely to carry PV7 serotypes. Serotype 19A was the most common serotype in both in- and out-patients, which is cause for concern as this serotype is often non-susceptible to penicillin and erythromycin. In-patients were more likely to carry non-typeable isolates, while equal percentages of isolates from both groups were non-encapsulated. Continued monitoring of post-vaccine serotype trends will be vital to the management of pneumococcal disease.

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77.005

Clinical and laboratory test follow up of patients with severe leptospirosis, after hospital discharge

A. Spichler[1], D. Athanazio[2,*], A.C. Seguro[1]

[1] *Emilio Ribas Hospital, São Paulo, Brazil*
[2] *Federal University of Bahia, Salvador, BA, Brazil*

Background: Although the acute phase disease is well described in leptospirosis, few studies have focused on the follow up after Hospital discharge. Thus, our knowledge is still insufficient on how frequent are some late complications or what is the rate of remission of laboratory markers of disease such kidney function tests, platelet count or liver enzymes. We investigated the frequency of clinical manifestations and the laboratory test abnormalities in patients who had severe leptospirosis at the ambulatory care level, after discharge.

Methods: Patients who had severe disease requiring inpatient were asked to return to the reference Hospital Emilio Ribas after discharge. The mean interval between Hospital discharge and the ambulatory visit was 24.7 ± 11.1 days (mean $\pm$ SD). Clinical and laboratory data were collected.

Results: Thirty-nine consecutive patients were enrolled. Most patients were males (85%, 35/39) and the mean age was 35.5 ± 17.6 years. The mean period of hospitalization was 11.5 ± 7.0 days. During hospitalization, the patients presented the following clinical manifestations or complications: pulmonary involvement (26%, 10/39), jaundice (59%, 23/39), renal failure (44%, 17/39, six requiring dialysis), and shock (8%, 3/39). Twelve (31%) required ICU support. The following abnormal laboratory test results were obtained in the acute phase disease: serum creatinine > 3 mg/dl (36%, 14/39), Bilirubin > 6 mg/dl (41%, 16/39), platelet count < 70,000 units per mm3 (21%, 8/39), aspartate aminotransferase > 100 UI/L (29%, 9/31) and alanine aminotransferase > 100 UI/L (26%, 8/31). At the ambulatory visit, only minor complaints were reported: weakness ($n = 7$), headache ($n = 3$), myalgia ($n = 1$) while jaundice persisted three cases. Uveitis was not detected. No patient had platelet count lower than 150,000 units/mm3. No patient had serum creatinine > 3 mg/dl or serum Bilirubin > 6 mg/dl at the ambulatory visit. Serum Alanine aminotransferase > 100 UI/L persisted in two patients.

Conclusion: Our results confirm the general concept that leptospirosis usually resolves without long lasting effects. Further studies are recommended to evaluate if elevation of liver enzymes, a laboratory test abnormality already associated with poor prognosis in previous studies, improves in a lower rate when compared to other manifestations.

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77.006

The detection of antibodies directed against specific antigens of *Borrelia burgdorferi sensu lato* (*B. burgdorferi s.s.*, *B. afzelii*, *B. garinii*, *B. spielmanii*) in patients with borreliosis in Eastern Poland

M. Tokarska-Rodak[1], H. Fota-Markowska[1,*], M. Kozioł—Montewka[1], F. Śmiechowicz[1], B. Gajownik[2], M. Prokop[3], R. Modrzewska[1]

[1] *Medical University, Lublin, Poland*
[2] *Public Hospital, Łuków, Poland*
[3] *Military Hospital, Lublin, Poland*

Background: The most common *Borrelia* genospecies involved in the etiology of Lyme disease in Eastern Europe are: *B. burgdorferi* s.s., *B. garinii*, and *B. afzelii*. However, the role of other genospecies including *B. spielmanii* has also been suggested. In view of a paucity of epidemiologic data concerning the role of *B. spielmanii* as the potential causative agent of Lyme disease in Poland, investigation towards identification of patients with serologic evidence of infection caused by this *Borrelia* genospecies was undertaken.

Methods: The study group comprised 41 patients from Eastern Poland with borreliosis (age range: 19-65 yrs). Detection of IgG and IgM antibodies to *B. burgdorferi* s.l. was performed using test (Mikrogen) which included the following antigens for IgM and IgG: OspC and p18 (*B. burgdorferi s.s., B. afzelii, B. garinii, B. spielmanii*), VlsE, p100, p58, p41, p39, and OspA.

Results: The results of the study indicate that the simultaneous presence of IgM antibodies against OspC protein characteristic of all four genospecies (*B. burgdorferi s.s., B. afzelii, B. garinii,* and *B. spielmanii)* was detected in 36 patients with clinical manifestations of borreliosis. The presence of IgM antibodies to OspC antigen of *B. spielmanii* accompanied by negative results for the presence of antibodies against antigens of the remaining genospecies was detected in one patient.

The IgG antibodies against *B. burgdorferi* s.l. were observed with varying frequency:

- anti- VlsE in 22 patients,
- anti-OspC for four genospecies: *B. burgdorferi s.s., B. afzelii, B. garinii* and *B. spielmanii* in 9 patients,
- anti-p18 for single genospecies, more often for *B. afzelii* (4 patients) and *B. spielmanii* (5 patients).